



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,647	06/25/2003	Chih-Chung Kang	KANG3010/EM	1051
23364	7590	12/02/2003	EXAMINER	
BACON & THOMAS, PLLC 625 SLATERS LANE FOURTH FLOOR ALEXANDRIA, VA 22314			STULTZ, JESSICA T	
			ART UNIT	PAPER NUMBER
			2873	

DATE MAILED: 12/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/602,647

Applicant(s)

KANG, CHIH-CHUNG

Examiner

Jessica T Stultz

Art Unit

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____

DETAILED ACTION

Specification

The disclosure is objected to because it includes numerous grammatical errors. For example, page 2, line 22, “ is attached into a bottom case” should be “is attached to a bottom case” and line 25, “positioned in the same side” should be “positioned on the same side”. Appropriate correction is required.

Claim Objections

Claims 1- 13 are objected to because of the following informalities: Regarding claim 1, in line 4, “said carrier is attached on” should be “said carrier is attached to”; in line 5, “on a edge” should be “on an edge”, “spring connecting between said carrier” should be “spring connection between said carrier”; in line 7, “which is winded” should be “which is wound”; in line 9, “which is attached on said sliding plate” should be “which is attached to said sliding plate”; in line 10, “in Y-axis direction” should be “in a Y-axis direction”, “spring connecting between said support” should be “spring connection between said support” and in line 12, “which is winded” should be “which is wound”. Regarding claim 2, “base plate installed” should be “base plate is installed”; “the down surface” should be “the bottom surface”. Regarding claim 3, “ratchets for releasing rotational limit by pressing” should be “ratchets which are pressed to release the rotational limit of the knob”. Regarding claim 4, “which said cables are transferred the direction by” should be “which transfers the direction of the cables”. Regarding claim 5, “positioned in the same side” should be “positioned on the same side”. Regarding claim 6, “positioned in” should be “positioned along”, and “carrier longitudinally moved” should be “carrier, which is longitudinally moved”. Regarding claim 7, “positioned in” should be

“positioned along”, and “plate vertically moved” should be “plate, which is vertically moved”. Regarding claim 8, “ is attached into a bottom case” should be “is attached to a bottom case”. Regarding claim 9, in line 4, “ is attached on” should be “is attached to”, in lines 5 and 10, “positioned beside” should be “positioned along”, in line 6, “which is winded” should be “which is wound”, in line 7, “respective” should be “respectively” and “in X-axis direction” should be “in an X-axis direction”, in line 9, “plate attached to” should be “plate is attached to”, in line 11, “plateand” should be “plate and” “which is winded” should be “which is wound”, in line 12, “respective” should be “respectively” and “in X-axis direction” should be “in a Y-axis direction”. Regarding claim 10, “are positioned in” should be “are positioned on”. Regarding claim 11, “bolt in a inclined” should be “bolt in an inclined”. Regarding claim 12, “positioned in” should be “positioned along”, and “carrier longitudinally moved” should be “carrier, which is longitudinally moved”. Regarding claim 13, “positioned in” should be “positioned along”, and “plate vertically moved” should be “plate, which is vertically moved”. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 2 (and therefore dependent claims 3-5 and 8) rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the

invention. Specifically it is unclear from the specification what the phrase “connecting to a solid” defines as a limitation in the claim.

Claims 3-5 and 8 are rejected because they inherit the indefiniteness of the claims from which they depend.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 6-7, and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Durell 4,859,029 (herein referred to as “Durell ‘029”) in view of Kijima et al.

Regarding claim 1, Durell ‘029 discloses an adjusting apparatus for an optical device comprising: an optical device (Column 10, lines 47-58, wherein the optical device is the light transmission element “218”, Figures 11-13); a carrier which the optical device is fixed on (Column 11, lines 20-23 and Column 12, lines 22-25, wherein the carrier is “434”, Figures 11-13); a sliding plate which the carrier is attached to (Column 10, lines 48-66, wherein the sliding plate is support member “414”, Figures 11-13), a support which is positioned beside the carrier in the X-axis direction and fixed on an edge of the sliding plate (Column 10, lines 48-66, wherein the support member is “423”, Figures 11-13), at least one spring connection between the carrier and the support (Column 10, line 65-Column 11, line 7, wherein the springs are “425”, Figures 11-13); a X-axis adjusting knob (Column 10, lines 48-66, wherein the X-axis adjustment knob is “422”, Figures 11-13); a base plate which is attached to the sliding plate (Column 10,

line 48-66, wherein the base plate is the plate "413", Figures 11-13), a support being positioned beside the sliding plate in a Y-axis direction and fixed on a edge of the base plate (Column 10, line 67-Column 11, line 23, wherein the support is housing "411", Figures 11-13), at least one spring connecting between the support and the sliding plate (Column 10, lines 48-66, wherein the springs are "415", Figures 11-13); and a Y-axis adjusting knob (Column 11, lines 19-23, wherein the Y-axis adjusting knob is "432", Figures 11-13), but does not specifically disclose that the adjusting knobs are wound by a cable, wherein the cables connects to either one side of the carrier or the other side of the sliding plate. Kijima et al teaches of a biaxial optical adjustment device (Column 4, lines 50-62, wherein the adjustment device is "21", Figure 6) including an optical device in a carrier (Column 4, lines 50-62, wherein the device is lens "22" and the carrier is movable portion "23", Figure 6) and adjustment portions that are wound by cable and connected to the moving carrier (Column 4, lines 50-62 and Column 5, lines 36-47, wherein the adjustment portions are "pieces "33a" and "33b" and the which are wound by coils "30a" and "30b", Figure 6) for the purpose of providing appropriate tracking adjustment for the optical device (Column 5, line 48-Column 6, line 13, Figure 6). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made for the adjusting apparatus of Durell '029 to further include the adjusting knobs wound by a cable, wherein the cables connect to either one side of the carrier or the other side of the sliding plate since Kijima et al teaches of a biaxial optical adjustment device including an optical device in a carrier and adjustment portions that are wound by cable and connected to the moving carrier for the purpose of providing appropriate tracking adjustment for the optical device.

Regarding claims 6-7, Durell '029 and Kijima et al discloses and teach of the adjusting apparatus as disclosed above and Durell '029 further discloses guide rails along the Y-axis of the carrier to move it along the X-axis (Column 11, lines 10-23 and Column 12, line 7-25, wherein the guide rails are along the rod "426" within aperture "431" which affects movement of the collar "451", surrounding carrier "434", which provides motion of the carrier "434" along the X-axis within chamber "412", Figures 11-13) and guide rails along the X-axis of the sliding plate to move it along the Y-axis (Column 10, line 59-Column 11, line 23, wherein the guide rails are along the rod "419" within the aperture "421", which moves the sliding plate "414" along the Y-axis, Figures 11-13).

Regarding claim 9, Durell '029 discloses an adjusting apparatus for an optical device comprising: an optical device (Column 10, lines 47-58, wherein the optical device is the light transmission element "218", Figures 11-13); a carrier which the optical device is fixed on (Column 11, lines 20-23 and Column 12, lines 22-25, wherein the carrier is "434", Figures 11-13); a sliding plate which the carrier is attached to (Column 10, lines 48-66, wherein the sliding plate is support member "414", Figures 11-13), a X-axis adjusting knob (Column 10, lines 48-66, wherein the X-axis adjustment knob is "422", Figures 11-13) fixed on the sliding plate (Column 10, lines 48-66, wherein the sliding plate is support member "414", Figures 11-13); a base plate which the sliding plate is attached to (Column 10, line 48-66, wherein the base plate is the plate "413", Figures 11-13) and a Y-axis adjusting knob (Column 11, lines 19-23, wherein the Y-axis adjusting knob is "432", Figures 11-13) fixed on the base plate (Column 10, line 48-66, wherein the base plate is the plate "413", Figures 11-13), but does not specifically disclose that the adjusting knobs are wound by a cable, wherein the cables connects to either one side of the

carrier or the other side of the sliding plate and a pair of bolts on along the carrier longitudinally and the sliding plate vertically, through which the cables pass. Kijima et al teaches of a biaxial optical adjustment device (Column 4, lines 50-62, wherein the adjustment device is "21", Figure 6) including an optical device in a carrier (Column 4, lines 50-62, wherein the device is lens "22" and the carrier is movable portion "23", Figure 6), adjustment portions that are wound by cable and connected to the moving carrier (Column 4, lines 50-62 and Column 5, lines 36-47, wherein the adjustment portions are "pieces "33a" and "33b" and the which are wound by coils "30a" and "30b", Figure 6) and bolts placed on the carrier which the cables pass through (Column 6, lines 14-27, wherein the bolts are the hold portions "37a and 37b", Figure 6) for the purpose of providing appropriate tracking adjustment in four different directions for the optical device (Column 5, line 48-Column 6, line 27, Figure 6). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made for the adjusting apparatus of Durell '029 to further include the adjusting knobs wound by a cable, wherein the cables connect to either one side of the carrier or the other side of the sliding plate and a pair of bolts on along the carrier longitudinally and the sliding plate vertically, through which the cables pass since Kijima et al teaches of a biaxial optical adjustment device including an optical device in a carrier, adjustment portions that are wound by cable and connected to the moving carrier and bolts placed on the carrier which the cables pass through for the purpose of providing appropriate tracking adjustment in four different directions for the optical device.

Regarding claims 10-11, Durell '029 and Kijima et al discloses and teach of the adjusting apparatus as disclosed above and Kijima et al further discloses that the adjusting knobs are on the same side of the adjusting apparatus (Figure 6, wherein the knobs "33a and 33b" are on the same

side of the apparatus) and that the apparatus include a tension adjusting knob which the cable pass through (Column 5, line 49-Column 6, line 28, wherein the adjusting knob is the drive coil “29”) for the purpose of proper focusing of the optical device (Column 5, line 49-Column 6, line 28). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made for the apparatus of Durell ‘029 and Kijima et al as shown above further include the adjusting knobs on the same side of the adjusting apparatus and that the apparatus include a tension adjusting knob which the cable pass through since Kijima et al further discloses that the adjusting knobs are on the same side of the adjusting apparatus and that the apparatus include a tension adjusting knob which the cable pass through for the purpose of proper focusing of the optical device.

Regarding claims 12-13, Durell ‘029 and Kijima et al discloses and teach of the adjusting apparatus as disclosed above and Durell ‘029 further discloses guide rails along the Y-axis of the carrier to move it along the X-axis (Column 11, lines 10-23 and Column 12, line 7-25, wherein the guide rails are along the rod “426” within aperture “431” which affects movement of the collar “451”, surrounding carrier “434”, which provides motion of the carrier “434” along the X-axis within chamber “412”, Figures 11-13) and guide rails along the X-axis of the sliding plate to move it along the Y-axis (Column 10, line 59-Column 11, line 23, wherein the guide rails are along the rod “419” within the aperture “421”, which moves the sliding plate “414” along the Y-axis, Figures 11-13).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Durell ‘433, Yoon, Ikegame are cited as being some similar structure to the claimed

Art Unit: 2873

invention since they disclose an adjusting apparatus to position an optical device in multiple axes.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessica T Stultz whose telephone number is (703) 305-6106. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 703-308-4883. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



Jessica Stultz
Patent Examiner
AU 2873
November 19, 2003



Georgia Epps
Supervisory Patent Examiner
Technology Center 2800